MONTHLY WEATHER REVIEW.

WASHINGTON, D. C., NOVEMBER, 1882.

INTRODUCTION.

This REVIEW presents a general summary of the meteorological data collected by the Signal Service for the month of November, 1882.

An interesting feature in the meteorology of the month has been the magnetic storm that occurred in connection with the brilliant and widely observed auroral display of the 17th. Reports show that the auroral display was also observed throughout Europe, and that the attendant magnetic disturbance was perceptibly felt in that continent.

As a noteworthy feature of the month, may also be mentioned, the marked deficiency in the rainfall over the north Pacific coast region, and over New England and the middle Atlantic states.

That part of the REVIEW referring to International Meteorology, presents the general weather conditions which prevailed over the northern hemisphere during the month of September, 1880. The weather, during the month, differed but slightly from the normal, except in the amount of the rainfall, which was above the average in central Europe. Chart v. exhibits the path of barometric minima for December, 1880. A special feature of that chart is the unusually large number of depressions that appeared on the Pacific coast.

In the preparation of this REVIEW, the following data received up to December 20th, have been used; viz.: the regular tri-daily weather charts, containing the data of simultaneous observations taken at one hundred and thirty-six Signal Service stations and fourteen Canadian stations, as telegraphed to this office; one hundred and ninety-two monthly journals, and one hundred and seventy-nine monthly means from the former, and fourteen monthly means from the latter; two hundred and seventeen monthly registers from voluntary observers; fifty-five monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; Marine Reports, through the co-operation of the "New York Herald Weather Service;" abstracts of Ships' Logs, furnished by the publishers of "The New York Maritime Register;" monthly reports from the local weather services of Indiana, Iowa, Kansas, Nebraska, and Missouri, and of the Central Pacific railway company; trustworthy newspaper extracts; and special reports.

BAROMETRIC PRESSURE.

[*Expressed in inches and hundredths.*]

The mean barometric pressure for the month of November, 1882, over the United States and Canada, is shown by the isobarometric lines (in black) on chart ii.

The region of highest mean pressure embraces parts of Utah, Colorado, and New Mexico, and is inclosed by the isobar of 30.30. The highest monthly barometric means, 30.44 and 30.33, have been reported from Pike's Peak, Colorado, and Salt Lake City, Utah, respectively. A large area extending from Washington Territory to northwestern Texas, is inclosed by the isobar of 30.25. From this region eastward, the mean pressures diminish gradually, and are lowest in New England and the Canadian maritime provinces; the lowest monthly mean, 29.95, is reported from Sydney, Nova Scotia. The isobar of 30.15 extends through the lake region to the Atlantic, and thence along the Atlantic and Gulf coasts to the west Gulf states. Westward and southwestward of the region of highest pressure, the monthly means decrease rapidly, and are lowest in southern Arizona, where the lowest means reported are 30.04, at Yuma, and 30.06 at Tucson.

Compared with the means of the previous month, the pressure is higher in all districts, except in New England. The most marked increase occurs in the Rocky mountain regions, where the pressure is from 0.20 to 0.40 higher. On the Pacific coast, the increase ranges from 0.04 to 0.21. From the Mississippi river eastward to the middle and south Atlantic states, the increase varies from 0.05 to 0.22. In New England, the pressure is from 0.01 to 0.05 lower, except at Boston, Massachusetts, where there is no change.

DEPARTURES FROM THE NORMAL VALUES FOR THE MONTH.

Compared with the November means of previous years, the pressure is from 0.02 to 0.07 below the normal from New England southwestward to the Mississippi river. In the lake region and from the Mississippi westward to the Rocky mountains, the pressure is from normal to 0.11 above. On the Pacific coast, the departures vary from normal to 0.06 below.

BAROMETRIC RANGES.

Throughout the country the barometric ranges have varied from 0.45 at Fort Grant and Tucson, Arizona, and 0.49 at San Diego, California, to 1.07 at Eastport, Maine, 1.10 at Alpena, Michigan, and 1.20 at Pike's Peak, Colorado. In the several districts the ranges have been as follows:

New England: From 0.83 at Provincetown, Massachusetts, to 1.07 at Eastport, Maine.

Middle Atlantic states: From 0.67 at Norfolk, Virginia, to 0.96 at Albany, New York.

South Atlantic states: From 0.60 at Charlotte, North Carolina, and 0.61 at Augusta, Georgia, to 0.87 at Hatteras, North Carolina.

Florida peninsula: From 0.68 at Key West, to 0.76 at Cedar Keys.

East Gulf states: From 0.79 at Starkville, Mississippi, and Montgomery, Alabama, to 0.94 at New Orleans, Louisiana.

CHART SUPPLEMENTAL TO NO. 1.

Showing the tracks of storm-centres on the Atlantic Ocean, after leaving the coast of America, based upon data received up to December 25.